Self Diagnosis Supported model

## HISTORY INFORMATION FOR THE FOLLOWING MANUAL:

# SERVICE MANUAL

***ORIGINAL MANUAL ISSUE DATE: 2/2012***

AZ3WK *CHASSIS*

Segment: P-2F

| Version | Date | Subject |
|---|---|---|
| 1.0 | 2/2012 | Original manual issue. |
| 1.1 | 2/2012 | Added part number of Insulation sheet G. (P.22) |

**LCD Digital Color TV**

SONY

**9-888-459-02**

Self Diagnosis Supported model

# SERVICE MANUAL

AZ3WK *CHASSIS*

Segment: P-2F

**LCD Digital Color TV**

SONY

**9-888-459-02**

# MODEL LIST

| MODEL | COLOR | COMMANDER | DEST. |
|---|---|---|---|
| **KLV-32BX350** | Black | RM-SA022 | CHINA |
| **KLV-40BX450** | Black | RM-SA022 | CHINA |
| **KLV-46BX450** | Black | RM-SA022 | CHINA |

| MODEL | COLOR | COMMANDER | DEST. |
|---|---|---|---|

# 型号表

| 型号 | 颜色 | 遥控器 | 地区. |
|---|---|---|---|
| **KLV-32BX350** | 黑色 | RM-SA022 | 中国 |
| **KLV-40BX450** | 黑色 | RM-SA022 | 中国 |
| **KLV-46BX450** | 黑色 | RM-SA022 | 中国 |

| 型号 | 颜色 | 遥控器 | 地区 |
|---|---|---|---|

# WARNINGS AND CAUTIONS - ENGLISH

## CAUTION

These servicing instructions are for use by qualified service personnel only.

To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

## WARNING!!

An isolation transformer should be used during any service to avoid possible shock hazard, because of live chassis.

The chassis of this receiver is directly connected to the ac power line.

## CARRYING THE TV

Be sure to follow these guidelines to protect your property and avoid causing serious injury.

• Carry the TV with an adequate number of people; larger size TVs require two or more people.

• Correct hand placement while carrying the TV is very important for safety and to avoid damages.

## SAFETY-RELATED COMPONENT WARNING!!

Components identified by shading and ! mark on the schematic diagrams, exploded views, and in the parts list are critical for safe operation. Replace these components with Sony parts whose part numbers appear as shown in this manual or in supplements published by Sony. Circuit adjustments that are critical for safe operation are identified in this manual. Follow these procedures whenever critical components are replaced or improper operation is suspected.

# 警告与注意

## 注意

维修使用说明仅限于有资质的维修人员使用。

为降低触电的风险，请不要进行使用说明书内容以外的检修，除非你可以胜任。

## 警告!!

检修时请务必使用隔离变压器，以避免因机壳带电引起触电。

接收器机壳直接连接在交流电源线上。

## 电视机运输

务必遵循这些指导来保护你的财产和避免造成严重伤害。

• 运送电视机需要足够的人手；大尺寸的电视机需要两人或更多的人

•搬运时把手放置在正确的位置对电视机的安全及避免损坏是非常重要的。

## 相关安全部件警告!!

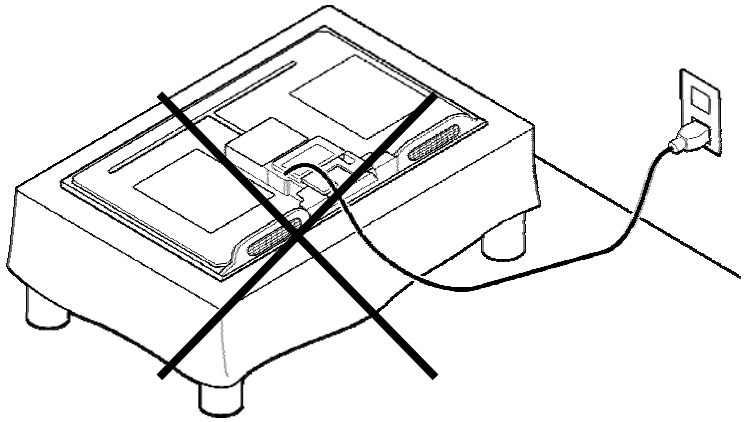
在示意图, 分解图, 和零件清单上用阴影标识的部件对安全操作很关键. 用本手册或SONY增补手册上出现零件号码的零件来替换这些部件。

无论何时，替换关键部件或出现疑似不正确操作时，都要遵循本流程。

# USE CAUTION WHEN HANDLING THE LCD PANEL

When repairing the LCD panel, be sure you are grounded by using a wrist band.
When repairing the LCD panel on the wall, the LCD panel must be secured using the 4 mounting holes on the rear cover.

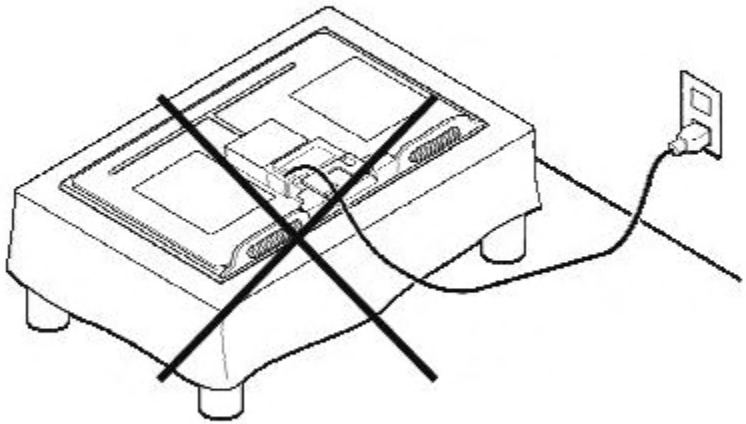
1) Do not press on the panel or frame edge to avoid the risk of electric shock.
2) Do not scratch or press on the panel with any sharp objects.
3) Do not leave the module in high temperatures or in areas of high humidity for an extended period of time.
4) Do not expose the LCD panel to direct sunlight.
5) Avoid contact with water. It may cause a short circuit within the module.
6) Disconnect the AC power when replacing the backlight (CCFL) or inverter circuit. (High voltage occurs at the inverter circuit at 650Vrms.)
7) Always clean the LCD panel with a soft cloth material.
8) Use care when handling the wires or connectors of the inverter circuit. Damaging the wires may cause a short.
9) Protect the panel from ESD to avoid damaging the electronic circuit (C-MOS).
10) It is recommended not to exceed 1 hour of Power-On nor Burn-in period with LCD panel face down condition, in repair activity.



# 搬运液晶显示屏时请务必小心

修理液晶显示屏时，请务必佩戴静电手环。
修理挂壁液晶显示屏时，液晶显示屏必需用后盖上的4个固定孔保护。

1) 不要按压到液晶屏或面框边缘以避免电击风险。
2) 不要用任何尖锐物品在液晶屏上刮擦或按压。
3) 不要让组件长期处在高温或高湿度环境中。
4) 不要让LCD液晶屏暴露在直射阳光中。
5) 避免与水接触。它可能引起组件内部短路。
6) 当更换背光灯(冷阴极荧光灯管) 或 逆变器(逆变器的高压输出会有650Vrms。)时，断开交流电源。
7) 要经常清洁液晶屏的话请用软布材料。
8) 当处理逆变器的线路或连接时，要小心。线路的损坏可能引起短路。
9) 用ESD保护液晶屏以免损坏电子电路 (C-MOS)。
10) 在维修期间，LCD 液晶屏面朝下的情况下，建议不要上电超过一小时或老化期间。



# SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are “pinched” or touching high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.
8. For safety reasons, repairing the Power board and/or Inverter board is prohibited.

# 安全检测

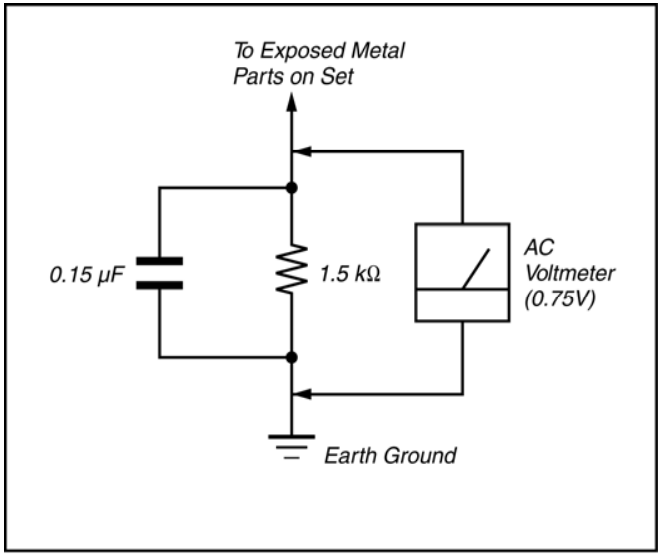
故障维修完成后，在交付给用户前必须进行下列检查：

1. 检查所维修位置是否还有为焊接或焊接不良的地方。检查整个面板表面是否存在任何焊渣或焊桥。
2. 检查面板面板内部布线，确保线路未扭绞在一起或者与高瓦特（功率）的电阻接触。
3. 检查是否需要更换所有的控制按钮，屏蔽线，外壳，接地线以及固定部件。务必保障在更换后是绝缘的。
4. 检查需要更换的部件，尤其是在以往维修时安装的电子元件。此时，须向用户说明此情况，并建议更换。
5. 查找虽在运行，但其性能已明显老化迹象的部件。此时，须向用户说明此情况，并建议更换。
6. 检查线路是否有破裂或磨损，如有则建议用户进行更换。
7. 检查天线端子、金属装饰条、镀金属的旋钮、螺丝以及所有外露的金属部件是否漏电。检查步骤参照下面说明进行。
8. 为了安全起见，禁止修复电源板与逆变器中任意一个。

## Leakage Test

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes).
Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.
2. A battery-operated AC milliampmeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale.
   The Simpson's 250 and Sanwa SH-63TRD are examples of passive VOMs that are suitable. Nearly all battery-operated digital multimeters that have a 2 VAC range are suitable (see Figure A).




**FigureA. Using an AC voltmeter to check AC leakage.**

## How to Find a Good Earth Ground

A cold-water pipe is a guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground.
If the retaining screw is to be used as your earth ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms.
If a cold-water pipe is not accessible, connect a 60- to 100-watt trouble- light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side on the line; the lamp should light at normal brilliance if the screw is at ground potential (see Figure B).

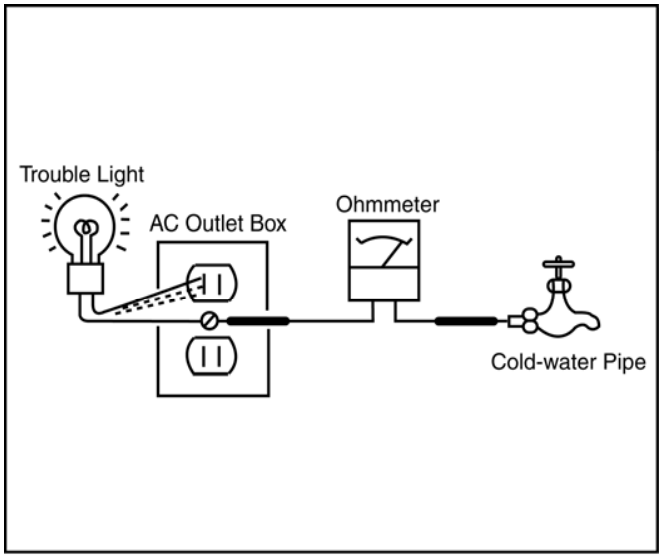
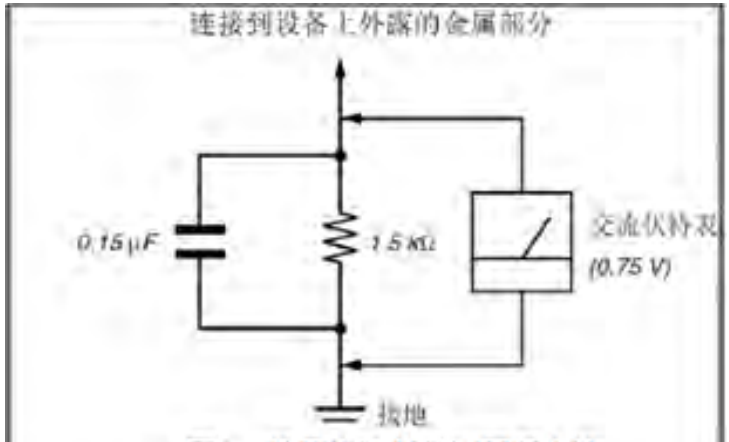



**Figure B. Checking for earth ground.**

## 漏电检测

从任何外露金属部分到接地，以及从所有外露金属部分到其他外露部分再回到底座之间的漏电电流不得超过0.5mA。可使用下列三种方法的任意一个去检测漏电：

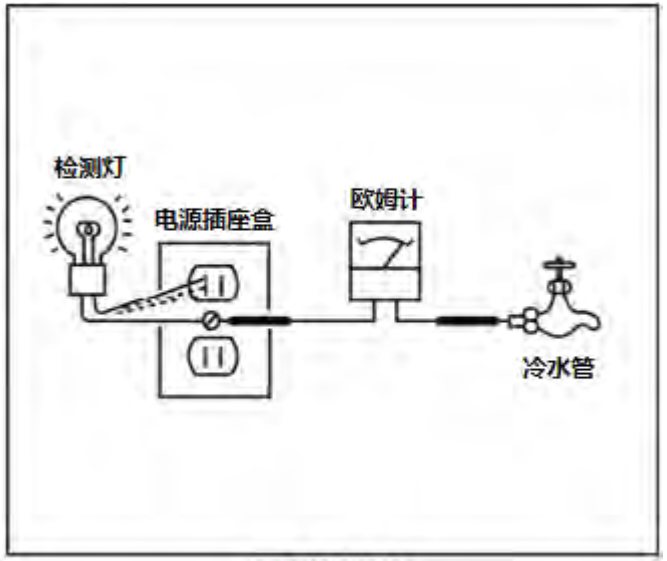
1. 商用检漏仪，例如 Simpson 229 或 RCA WT540A。按照制造商的指导操作使用。
2. 电池供电的交流毫安计，可使用 Data Precision 245 数字毫安计。
3. 使用VOM（伏特-欧姆计）或电池供电的交流伏特表测量电阻器降压。“限值”为0.75V，因此模拟仪表必需具有精确的低压刻度。Simpson 250 和 Sanwa SH-63Trd 均为无电源VOM量表，十分适用。几乎所有电池供电的数字毫安计都具有2V的交流范围，都适用进行测量（如图A所示）。



图A. 使用交流伏特测量漏电流

## 怎样找到一个好的接地点

冷水管是一种有保证的接地设备； 交流电插座盒盖板的固位螺丝同样是接地的。
如果要把固位螺丝用来接地，应先用欧姆表测量固位螺丝与冷水管之间的电阻，如果读数为零，证明此固位螺丝确实是接地的。
如果冷水管不容易接近，连接60到100瓦的检修灯(不是霓虹灯）在插座的高电位侧与固位螺丝之间。如果有必要的话,两个插槽都试试，以确定哪边是高电位侧,。如果螺丝在接地电位上，那么在正常的情况下灯是能被点亮的(如图B所示。



图B. 检查接地

# SELF DIAGNOSIS FUNCTION

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY LED will automatically begin to flash.
The number of times the LED flashes translates to a probable source of the problem.
A definition of the STANDBY LED flash indicators is listed in the instruction manual for the user's knowledge and reference.
If an error symptom cannot be reproduced, the remote commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

### DIAGNOSTIC TEST INDICATORS

When an error occurs, the STANDBY LED will flash a set number of times to indicate the possible cause of the problem.

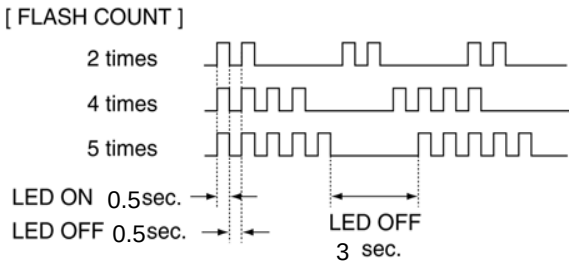
If there is more than one error, the LED will identify the first of the problem areas.

Result for all of the following diagnostic items are displayed on screen.

If the screen displays a "0", no error has occurred .

| STBY LED Flash time | Service menu Item name (Screen Display) | Diagnostic Item Description |
|---|---|---|
| 2 | MAIN_POWER | Main Power Over Voltage Protection |
| 3 | DC_ALERT1 | DC_ALERT |
| | AUDIO_PROT | Audio Abnormal Detection |
| 4 | BALANCER_ERR | Balancer Error |
| 5 | TCON_ERR | Detect TCON_RDY |
| | PANEL_ID__NVM_ERR | Panel ID NVM Error |
| 6 | BACKLIGHT_ERR | Back Light Error (Panel Inverter) |
| 7 | TEMP_ERR | Thermal Error |
| 8 | - | Not used |
| 9 | - | Not used |
| 10 | - | Not used |
| 11 | - | Not used |
| 12 | - | Not used |

### DISPLAY OF STANDBY LED FLASH COUNT




Note: One flash counts is not self-diagnostic.

### SELF-DIAGNOSTIC SCREEN DISPLAY

For errors with symptoms such as "power sometimes shuts off" or "screen sometimes goes out" that cannot be confirmed, it is possible to bring up past occurrences of failure for confirmation on the screen:

### [To Bring Up Screen Test]

In standby mode, press buttons on the remote commander sequentially in rapid succession as shown below:

Info ➡ Channel 5 ➡ Volume *− ➡ TV POWER

* : Note that this differs from entering the service mode (volume +)

# 自诊断功能

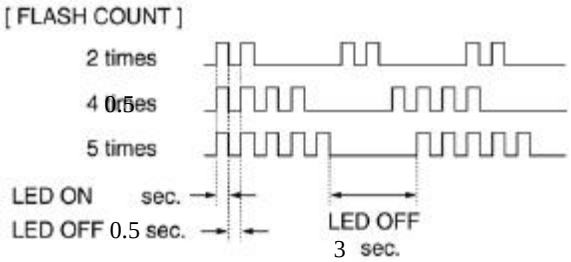
在本手册本单元中包含了自我诊断功能。如果出现故障，待机指示灯会自动闪烁。
LED指示灯闪烁次数指示了问题的来源。
LED指示灯闪烁次数所指示的问题见使用说明书使用须知与参考部分。
如果故障状态不能重现，可用遥控器回顾内存里的故障发生资料来查看以往故障及故障频率。

**诊断测试指标**

当故障出现时，待机LED指示灯将按照一定的次数闪烁来表示可能的故障原因。
如果故障超过一个以上，LED将先识别故障类别。
诊断项目的所有结果都会显示在界面上。
如果界面显示为“0”的话，则无故障出现。

| 待机指示灯闪烁次数 | 维修菜单名称 (显示界面) | 自诊断描述 |
|---|---|---|
| 2 | MAIN_POWER | 主电源过电压保护 |
| 3 | DC_ALERT1 | 直流电报警 |
| | AUDIO_PROT | 声音异常检测 |
| 4 | BALANCER_ERR | 平衡器故障 |
| 5 | TCON_ERR | 检测T-CON就位信号 |
| | PANEL_ID__NVM_ERR | 液晶屏上的非易失性存储器中参数错误 |
| 6 | BACKLIGHT_ERR | 背光灯报错(高压板) |
| 7 | TEMP_ERR | 温度报错 |
| 8 | - | 无此项 |
| 9 | - | 无此项 |
| 10 | - | 无此项 |
| 11 | - | 无此项 |
| 12 | - | 无此项 |

**待机指示灯闪烁计数显示**




Note: One flash counts is not self-diagnostic.

**自诊断界面显示**

例如“有时关机”或“屏幕有时不显示”，这些无法确定的故障状态，可医用如下的方法进入自增段的方法来检测判断故障

**[跳出测试界面]**

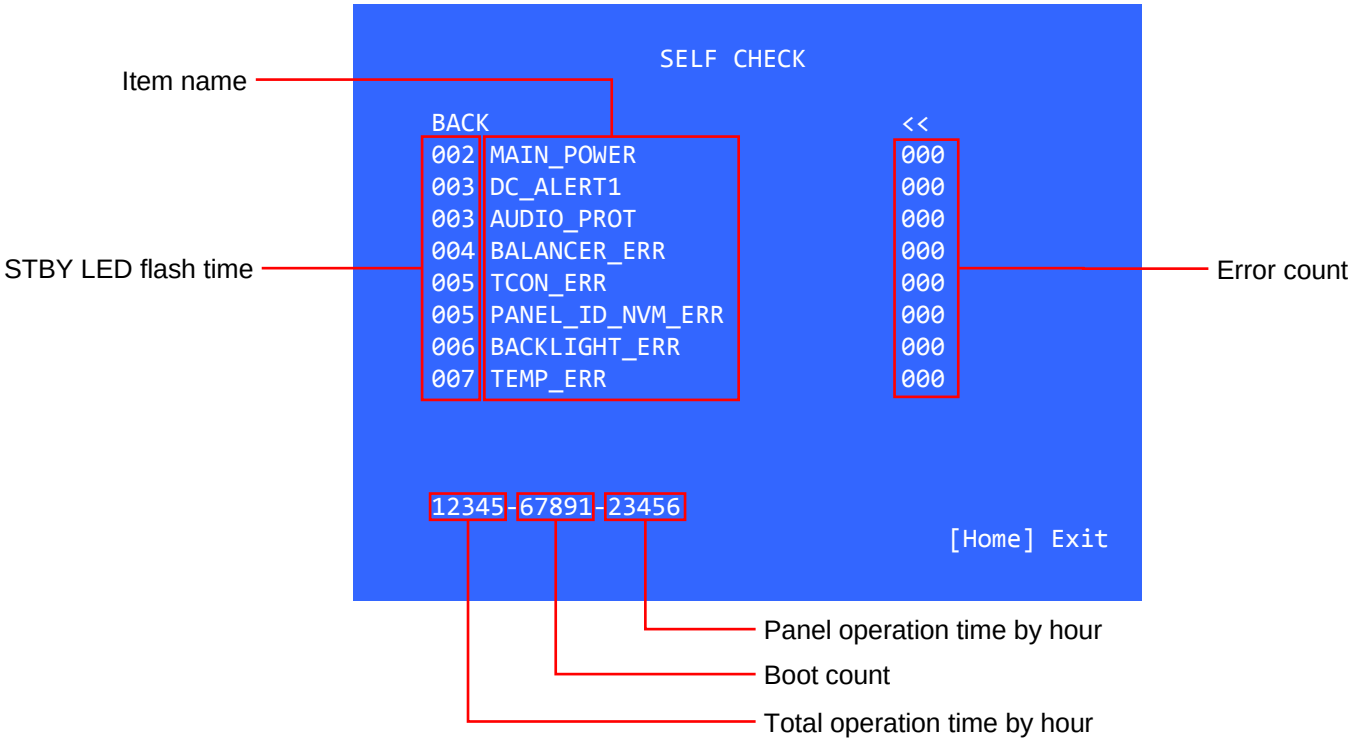
在待机的状态下，按照如下的顺序快速连续的按遥控器上的按键：

*

屏显 ➡ 频道 5 ➡ 音量 - ➡ 电视电源

*** : 请注意这里需要区别于进入维修模式(音量 +)**

**[SELF DIAGNOSTIC SCREEN DISPLAY]**




Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen.
After you have completed the repairs, clear the result display to “0”.

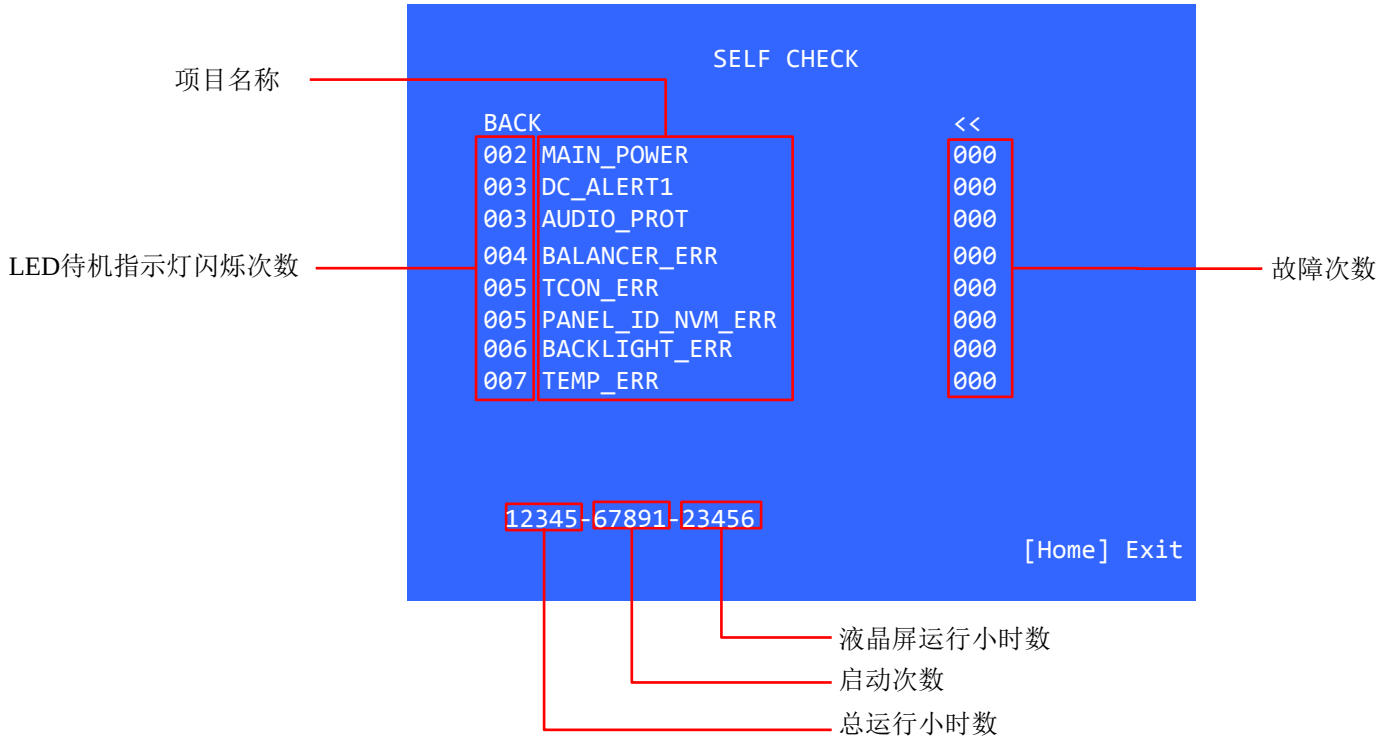
Clearing the Self Check Diagnostic List

1. Error history and Error count : Press the Channel 8 => Channel 0 .
2. Panel operation time : Press the Channel 7 => Channel 0 .

**Exiting the Self-diagnostic screen**

To exit the Self Diagnostic screen, turn off the power to the TV by pressing the POWER button on the remote or the POWER button on the TV.

**[自诊断显示屏显]**




因为显示在屏幕上的诊断结果不会自动清除，并始终停留在自我诊断屏幕。
当你完成修理时，把显示结果清零。

清除自我诊断表

1. 故障历史记录和数量: 按按键8 => 按键 0 .
2. 液晶屏运行时间: 按按键7 => 按键 0 .

**退出自诊断屏显**

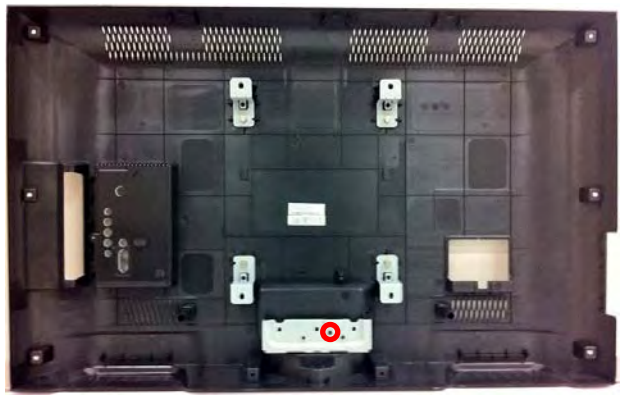
退出自诊断屏显，按下遥控器上的POWER键或者是电视机上的POWER开关来关掉电视机。

# SERVICE POSITION

As for this model, the stands are attached the rear cover side.
Therefore assemble the stand assy to the main unit according to the following procedure when performing adjustment and operation check after the part replacement.

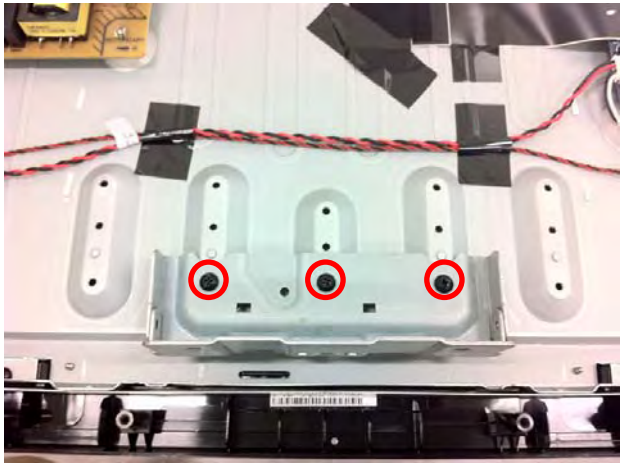
**<32 inch>**

**1. Disassemble of the Bottom frame from the Rear cover (One screw)**

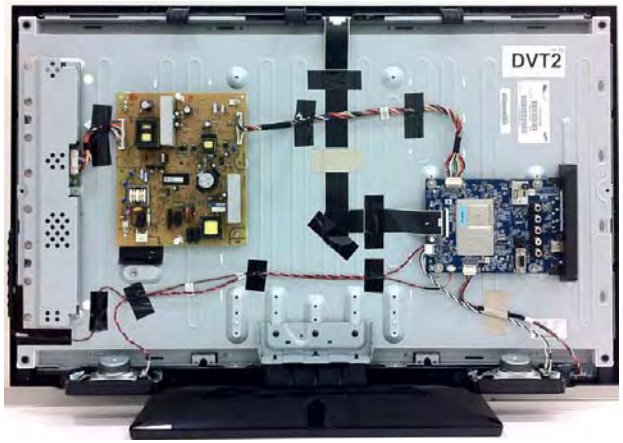


**2. Assemble of the Bottom frame to LCD panel (Three screws)**

Note: Use screws which were fixing the rear cover. (+PSW M4x10)

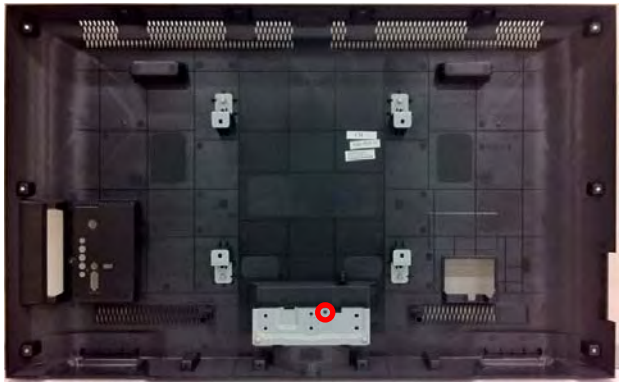


**3. Assemble of the Stand to main unit (Three screws)**



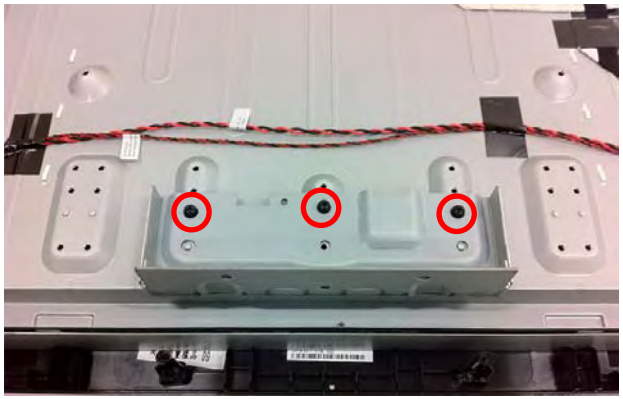
**<40 inch>**

**1. Disassemble of the Bottom frame from the Rear cover (One screw)**

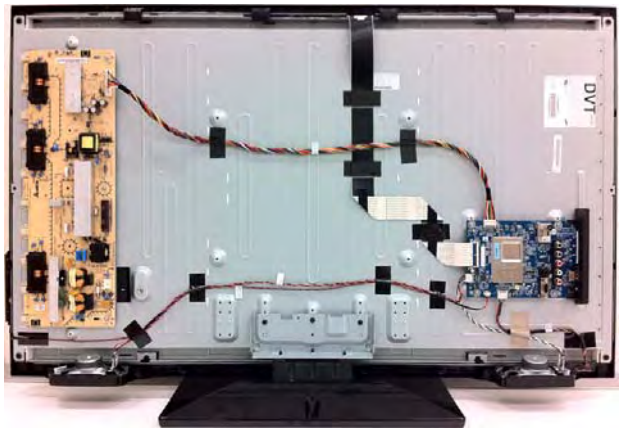


**2. Assemble of the Bottom frame to LCD panel (Three screws)**

Note: Use screws which were fixing the rear cover. (+PSW M4x10)

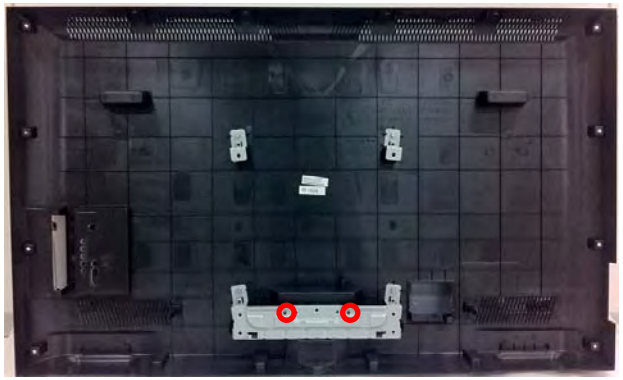


**3. Assemble of the Stand to main unit (Three screws)**



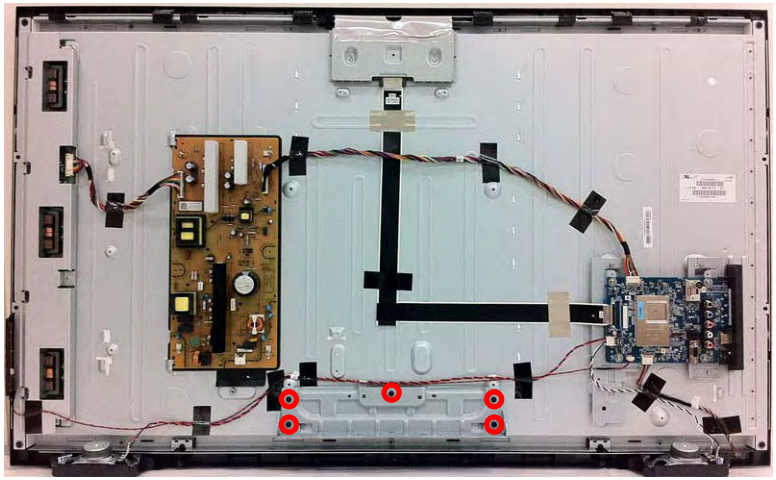
**<46 inch>**

**1. Disassemble of the Bottom frame from the Rear cover (Two screws)**

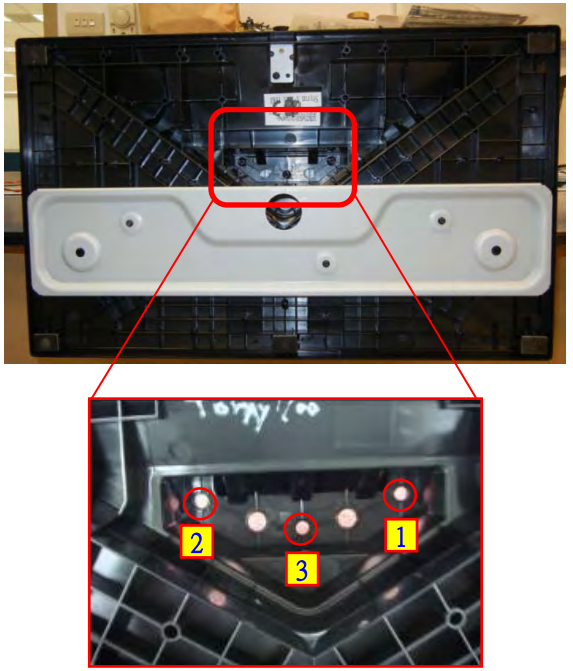


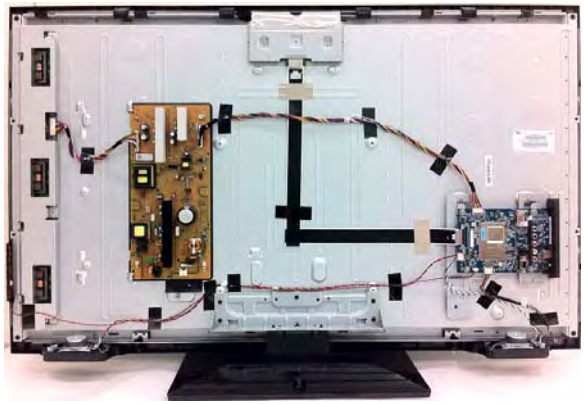
**2. Assemble of the Bottom frame to LCD panel (Five screws)**

Note: Use screws which were fixing the rear cover. (+PSW M4x10)



**3. Assemble of the Stand to main unit (Three screws)**



# SEC 1. DISASSEMBLY AND PARTS LIST

- Items with no part number and no description are not stocked because they are seldom required for roution service.
- The construction parts of an assembled part are indicated with a collation number in the remark colum.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

The components identified by mark 🔒 contain confidential information. Strictly follow the instructions whenever the components are repaired and/or replaced.

Note: When removing the rear cover, to prevent damaging the rear cover, please refer to "**APPENDIX-1"**.

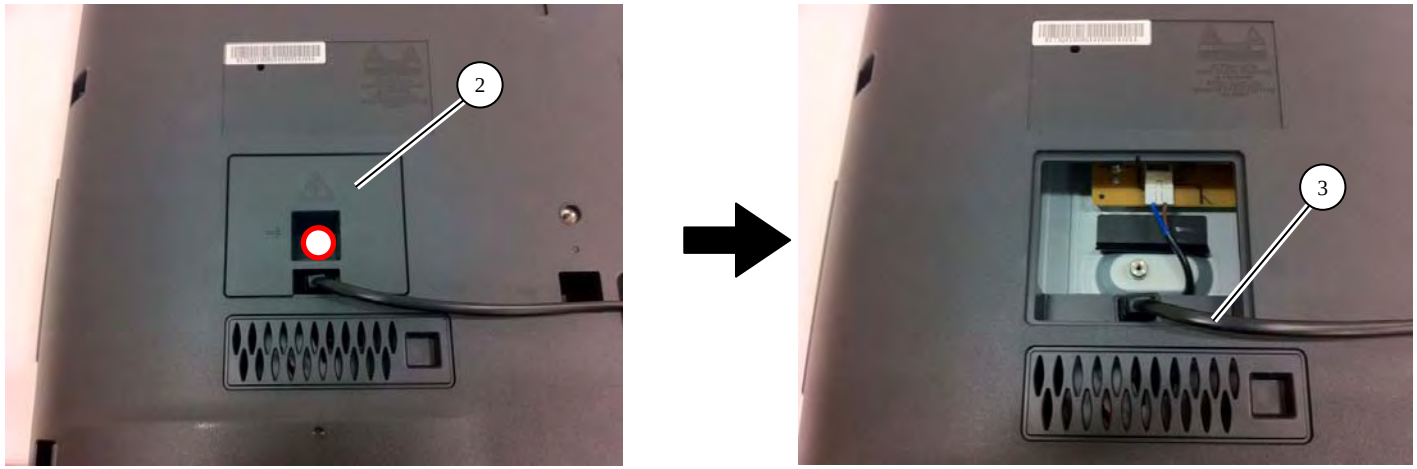
Note: Bezel and LCD panel have points installing with double sided tape.
About the procedure of those disassembly and assembly methods, please refer to **"APPENDIX-2"**.

# 1-1. KLV-32BX350

## 1-1-1. BASE STAND

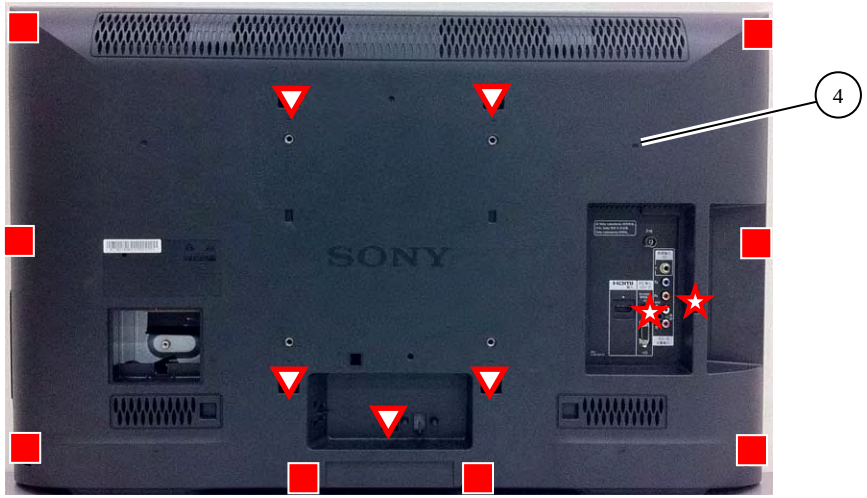
| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 1 | | 4-419-586-01 | STAND, BASE(M) | |
| 2 | | 4-400-568-01 | COVER AC (APOW) | |
| 3 | ⚠ | 1-839-908-11 | POWER SUPPLY CORD | |
| | | 2-580-592-01 | SCREW, +PSW M3X8 | |
| | | 2-580-608-11 | SCREW, +PSW M5X16 | |

## 1-1-2. AC COVER AND AC CORD



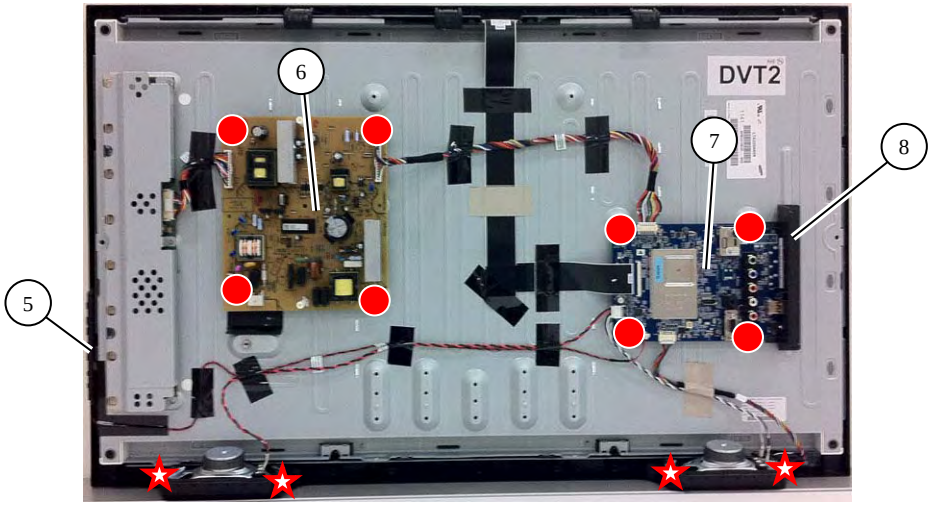
# 1-1. KLV-32BX350

## 1-1-3. REAR COVER




| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 4 | | 4-419-547-01 | REAR COVER (32APOW) | |
| 5 | | 1-490-176-21 | SWITCH UNIT | |
| 6 | ⚠ | 1-474-381-12 | G9(CH) STATIC CONVERTER (TV) | |
| 7 | 🔒 | 1-895-169-31 | MOUNTED PWB A | |
| 8 | | 4-400-566-01 | BRACKET, SIDE (APOW CH) | |
| 9 | | 1-858-770-11 | SPEAKER 4X10 | |

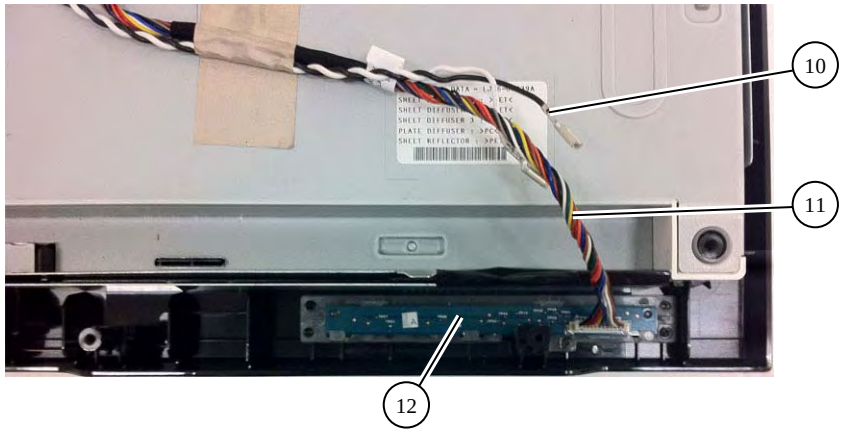
## 1-1-4. G9 BOARD, A BOARD, SPEAKER AND SWITCH UNIT



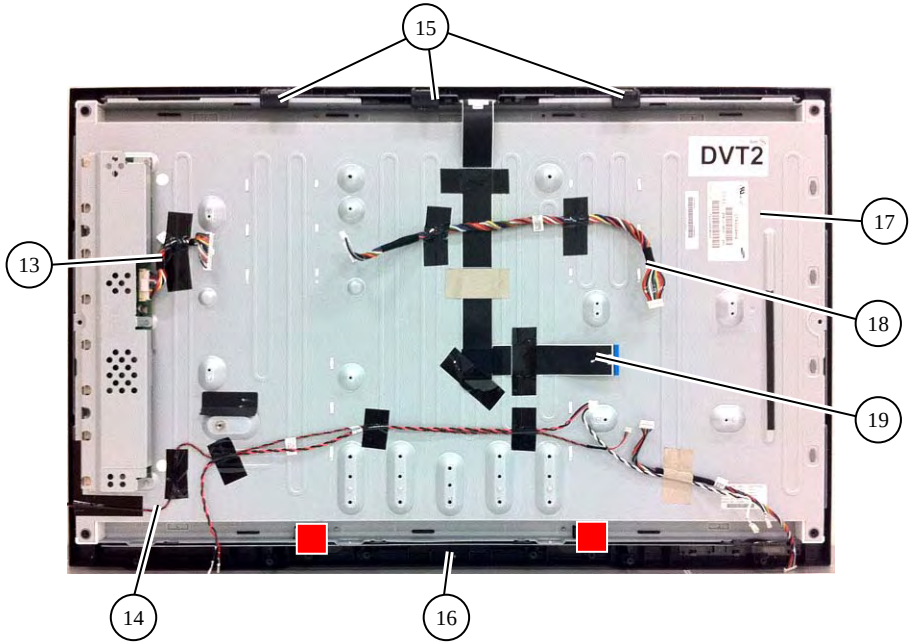

| | | |
|---|---|---|
| ■ | 2-580-640-01 | SCREW, +BVTP 4X16 TYPE2 IT-3 |
| ● | 7-682-948-01 | SCREW, +PSW 3X8 |
| ★ | 7-685-647-79 | SCREW +BVTP 3X12 TYPE2 IT-3 |
| ▽ | 4-159-298-01 | SCREW, +PSW M4X10 |

# 1-1. KLV-32BX350

## 1-1-5. H BOARD



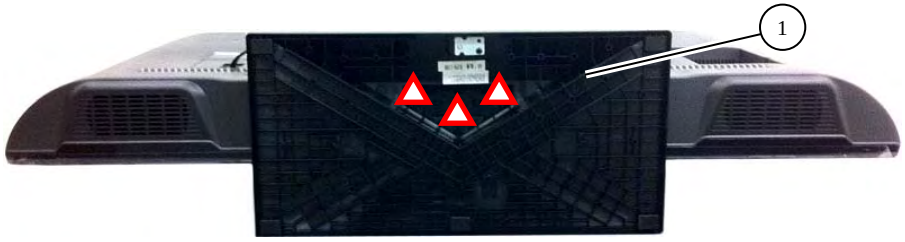

## 1-1-6. PANEL SUPPORT, LCD PANEL AND BEZEL




| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 10 | | 1-910-103-77 | CONNECTOR ASSY 4P SP | |
| 11 | | 1-910-103-73 | CONNECTOR ASSY 12P IR | |
| 12 | | 1-895-170-11 | MOUNTED PWB H | |
| 13 | | 1-910-103-75 | CONNECTOR ASSY 14P INV | |
| 14 | | 1-910-103-74 | CONNECTOR ASSY 3P MB-KEY | |
| 15 | | 4-417-048-01 | PANEL SUPPORT (E) | |
| 16 | | 4-419-544-01 | BEZEL (32APOW) | |
| 17 | | 1-910-103-76 | CONNECTOR ASSY 16P PS | |
| 18 | ⚠ | 1-811-602-11 | PANEL, LCD (W32) | |
| 19 | | 1-910-105-27 | CONNECTOR ASSY FFC 32 | |
| | ■ | 2-580-640-01 | SCREW, +BVTP 4X16 TYPE2 IT-3 | |

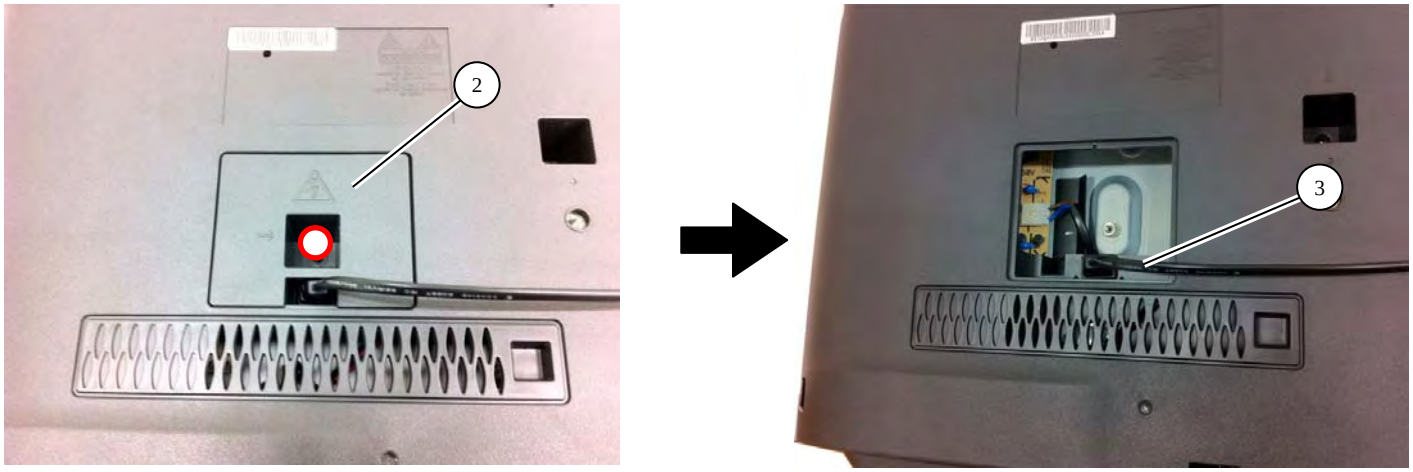
# 1-2. KLV-40BX450

## 1-2-1. BASE STAND



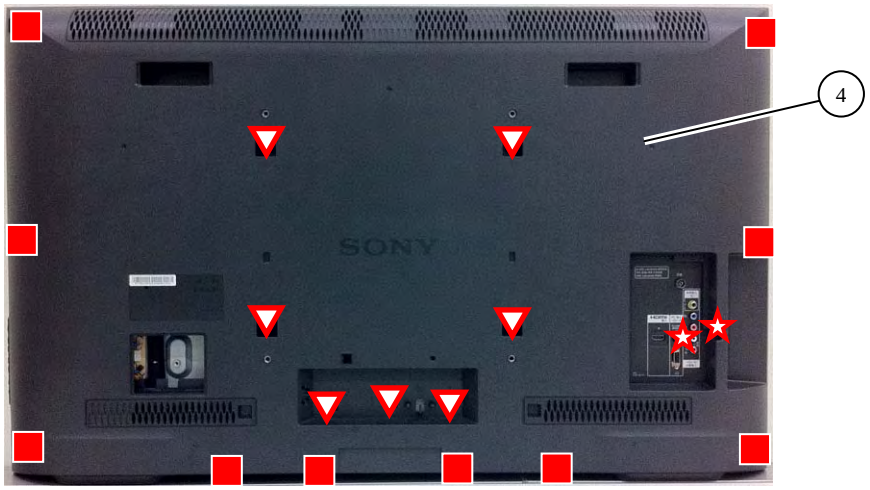

| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 1 | | 4-419-587-01 | STAND, BASE(ML) | |
| 2 | | 4-400-568-01 | COVER AC (APOW) | |
| 3 | ⚠ | 1-839-908-11 | POWER SUPPLY CORD | |
| | ○ | 2-580-592-01 | SCREW, +PSW M3X8 | |
| | △ | 2-580-608-11 | SCREW, +PSW M5X16 | |

## 1-2-2. AC COVER AND AC CORD



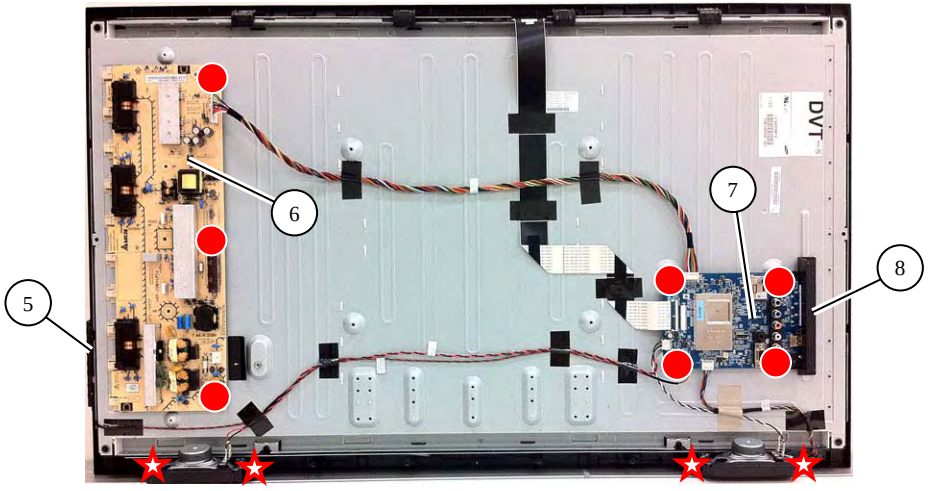
# 1-2. KLV-40BX450

## 1-2-3. REAR COVER




| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 4 | | 4-419-548-01 | REAR COVER (40APOW) | |
| 5 | | 1-490-176-21 | SWITCH UNIT | |
| 6 | ⚠ | 1-895-171-11 | MOUNTED PWB W40 | |
| 7 | 🔒 | 1-895-169-21 | MOUNTED PWB A | |
| 8 | | 4-400-566-01 | BRACKET, SIDE (APOW CH) | |
| 9 | | 1-858-770-11 | SPEAKER 4X10 | |

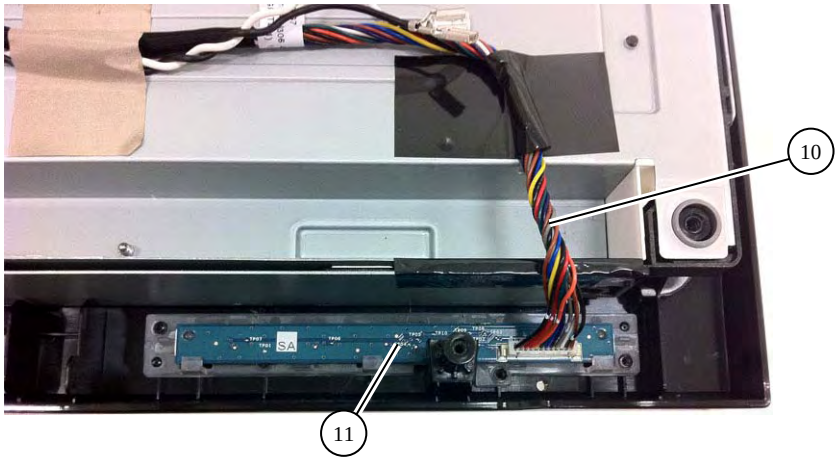
## 1-2-4. W40 BOARD, A BOARD, SPEAKER AND SWITCH UNIT



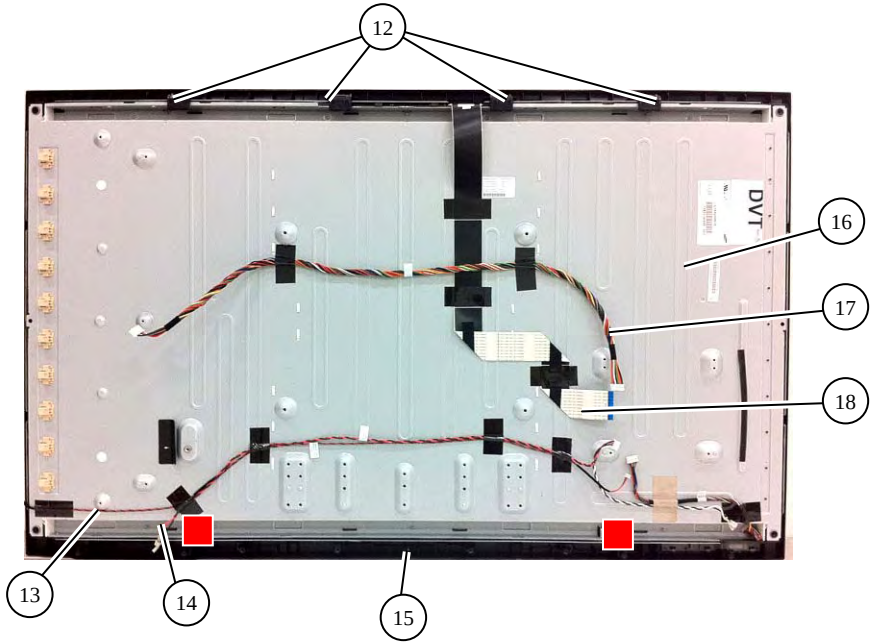

| | | |
|---|---|---|
| ■ | 2-580-640-01 | SCREW, +BVTP 4X16 TYPE2 IT-3 |
| ● | 7-682-948-01 | SCREW, +PSW 3X8 |
| ☆ | 7-685-647-79 | SCREW +BVTP 3X12 TYPE2 IT-3 |
| ▽ | 4-159-298-01 | SCREW, +PSW M4X10 |

# 1-2. KLV-40BX450

## 1-2-5. H BOARD




## 1-2-6. PANEL SUPPORT, LCD PANEL AND BEZEL

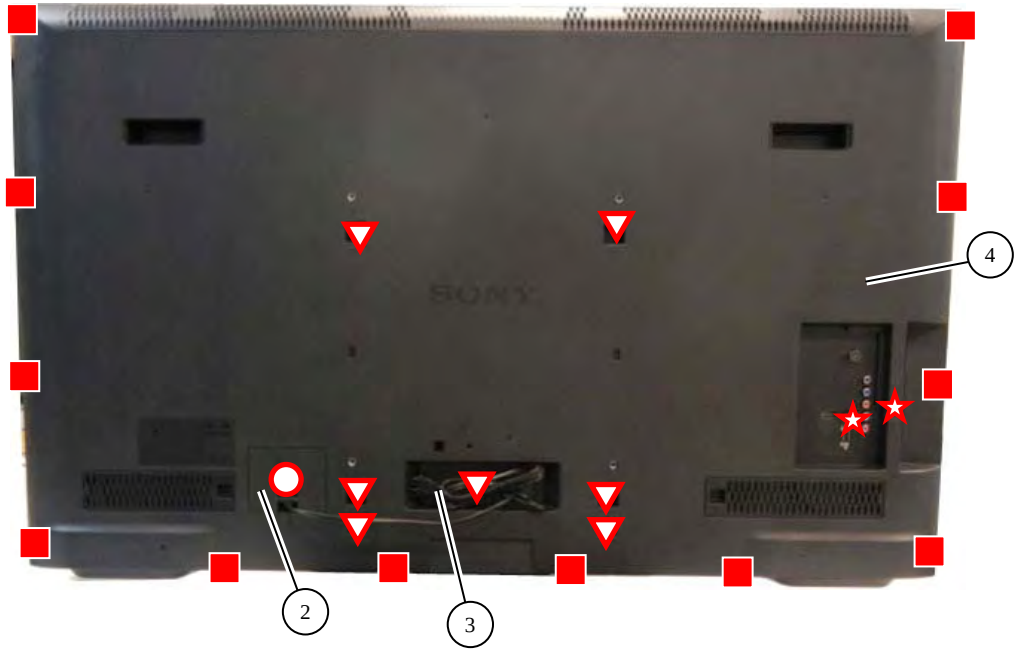



| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 10 | | 1-910-103-73 | CONNECTOR ASSY 12P IR | |
| 11 | | 1-895-170-11 | MOUNTED PWB H | |
| 12 | | 4-417-086-01 | PANEL SUPPORT (F) | |
| 13 | | 1-910-103-78 | CONNECTOR ASSY 3P MB-KEY | |
| 14 | | 1-910-103-80 | CONNECTOR ASSY 4P SP | |
| 15 | | 4-419-545-01 | BEZEL (40APOW) | |
| 16 | ⚠ | 1-811-603-11 | PANEL, LCD (W40) | |
| 17 | | 1-910-103-79 | CONNECTOR ASSY 16P PS | |
| 18 | | 1-910-105-26 | CONNECTOR ASSY FFC 40 | |
| | ■ | 2-580-640-01 | SCREW, +BVTP 4X16 TYPE2 IT-3 | |

# 1-3. KLV-46BX450

## 1-3-1. BASE STAND

## 1-3-2. AC COVER, AC CORD AND REAR COVER

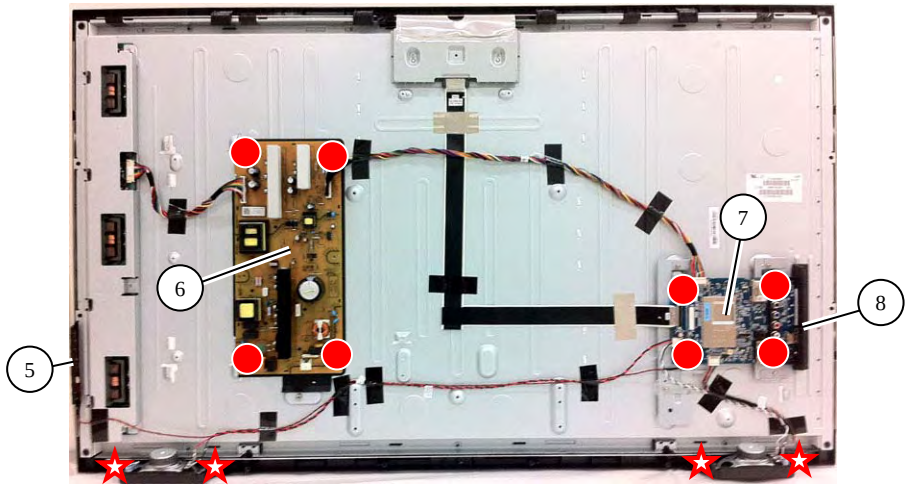



| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 1 | | 4-419-588-01 | STAND, BASE(L) | |
| 2 | | 4-400-568-01 | COVER AC (APOW) | |
| 3 | ⚠ | 1-839-908-11 | POWER SUPPLY CORD | |
| 4 | | 4-419-549-01 | REAR COVER (46APOW) | |

| | | |
|---|---|---|
| ○ | 2-580-592-01 | SCREW, +PSW M3X8 |
| △ | 2-580-608-11 | SCREW, +PSW M5X16 |
| ■ | 2-580-640-01 | SCREW, +BVTP 4X16 TYPE2 IT-3 |
| ▽ | 4-159-298-01 | SCREW, +PSW M4X10 |
| ☆ | 7-685-647-79 | SCREW +BVTP 3X12 TYPE2 IT-3 |

# 1-3. KLV-46BX450

## 1-3-3. G11 BOARD, A BOARD, SPEAKER AND SWITCH UNIT

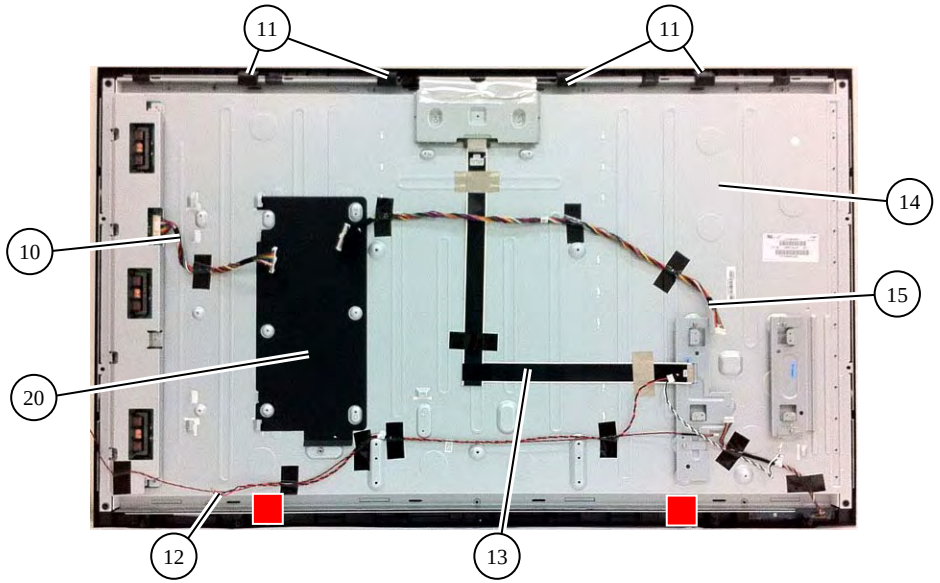


| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 5 | | 1-490-176-21 | SWITCH UNIT | |
| 6 | ⚠ | 1-474-382-12 | G11 STATIC CONVERTER (TV) | |
| 7 | 🔒 | 1-895-169-11 | MOUNTED PWB A | |
| 8 | | 4-400-566-01 | BRACKET, SIDE (APOW CH) | |
| 9 | | 1-858-770-11 | SPEAKER 4X10 | |

| | | |
|---|---|---|
| ● | 7-682-948-01 | SCREW, +PSW 3X8 |
| ☆ | 7-685-647-79 | SCREW +BVTP 3X12 TYPE2 IT-3 |

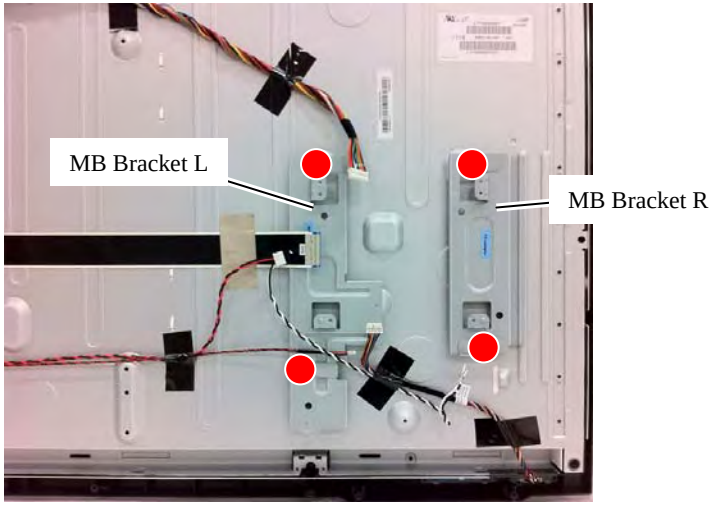
# 1-3. KLV-46BX450

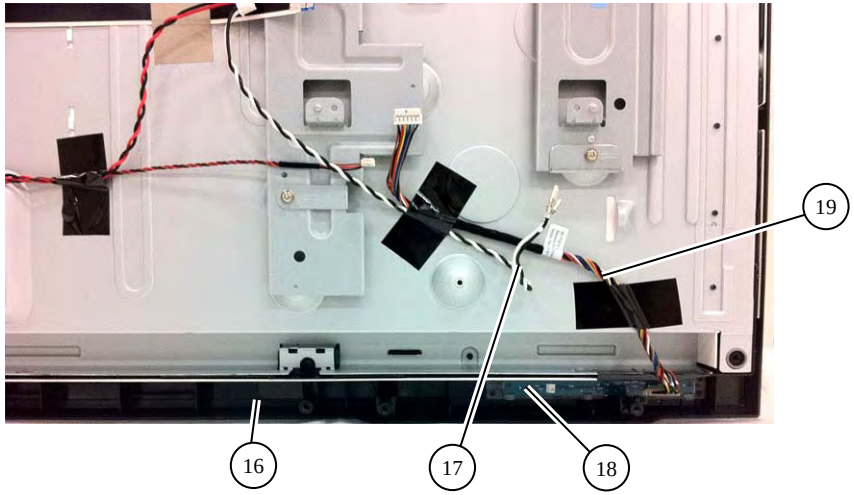
## 1-3-4. PANEL SUPPORT AND CONNECTOR ASSY




| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 10 | | 1-910-103-82 | CONNECTOR ASSY 14P INV | |
| 11 | ⚠ | 4-417-048-01 | PANEL SUPPORT (E) | |
| 12 | | 1-910-103-81 | CONNECTOR ASSY 3P MB-KEY | |
| 13 | | 1-910-105-25 | CONNECTOR ASSY FFC 46 | |
| 14 | | 1-811-575-11 | LCD PANEL (S46ESPW) | |
| 15 | | 1-910-103-83 | CONNECTOR ASSY 16P PS | |
| 16 | | 4-419-546-01 | BEZEL (46APOW) | |
| 17 | | 1-910-103-84 | CONNECTOR ASSY 4P SP | |
| 18 | | 1-895-170-11 | MOUNTED PWB H | |
| 19 | | 1-910-103-73 | CONNECTOR ASSY 12P IR | |
| 20 | | 4-423-579-01 | INSULATION SHEET G | |
| | ● | 7-682-948-01 | SCREW, +PSW 3X8 | |
| | ■ | 2-580-640-01 | SCREW, +BVTP 4X16 TYPE2 IT-3 | |

## 1-3-5. MB BRACKET, H BOARD AND BEZEL



# 1-4. OTHER PART

## 1-4-1. MISCELLANEOUS

| PART No. | DESCRIPTION | MARK |
|---|---|---|
| 4-414-471-01 | LABEL, REAR TERMINAL | |
| 1-489-995-11 | REMOTE COMMANDER (RM-SA022) | |

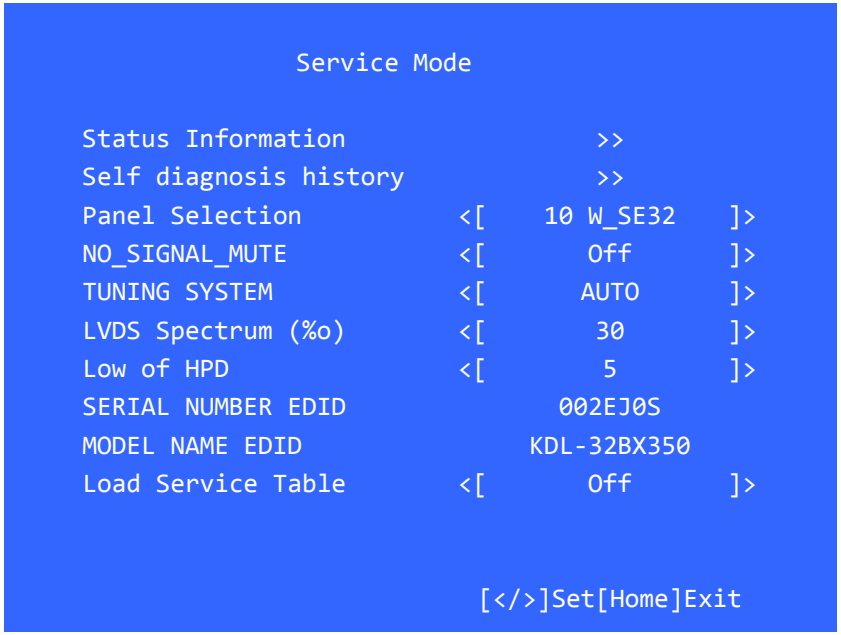
### HOW TO ENTERING SERVICE MODE

1) Turn on the main power switch to place this set in standby mode.

2) Press the buttons on the remote commander as follows, and entering service mode.

Info ➡ Channel 5 ➡ Volume + ➡ TV POWER

3) Service mode display.



4) How to use the remote commander.

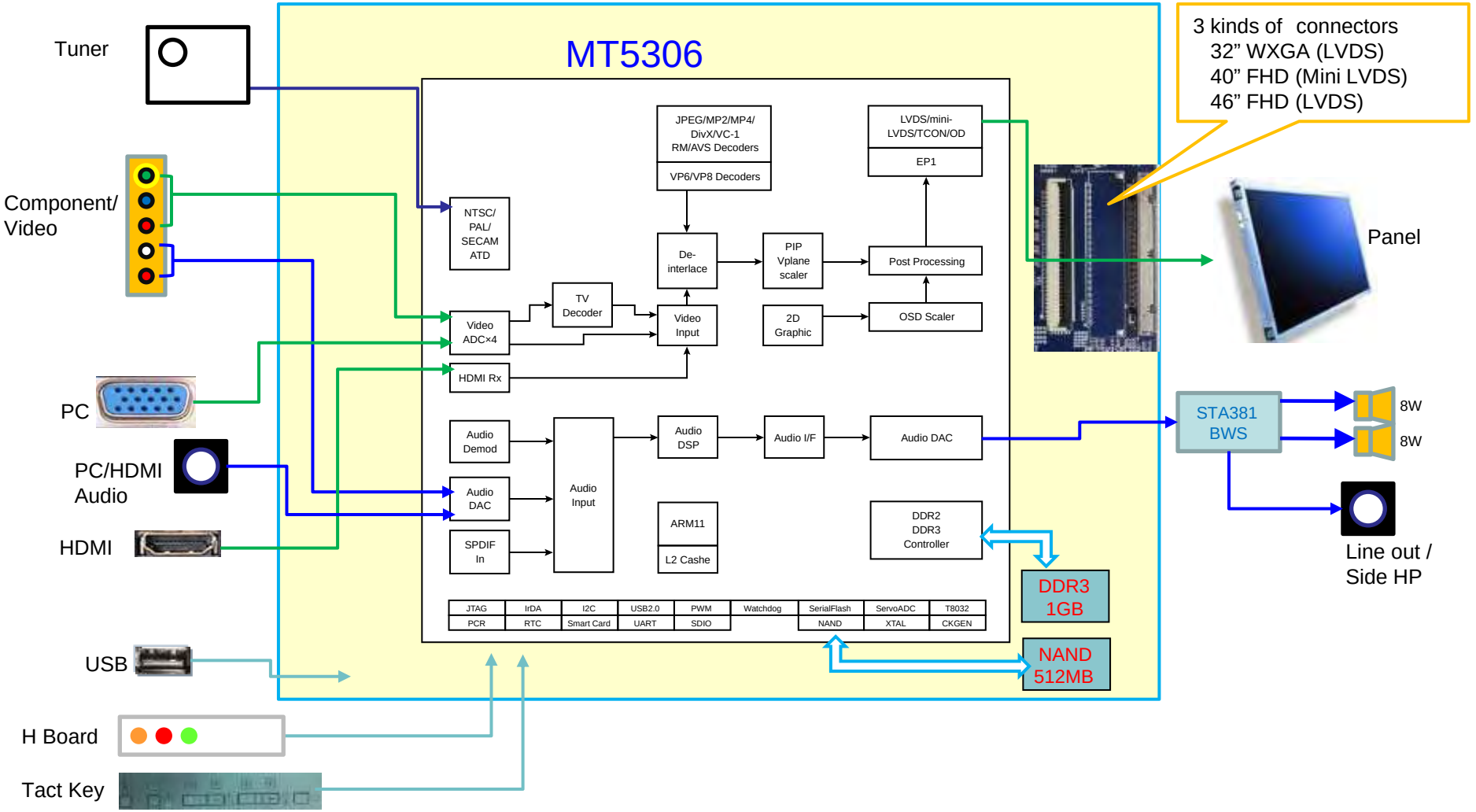
| Function | The flow of control |
|---|---|
| Service mode on | <Info><5><Vol Up><Power> |
| Service mode off | <Other> / <Power off + on> |
| Adjustment Item up / down | ⇧ / ⇩ |
| Data Value up / down | ⇦ / ⇨ |

5) After entering service mode, then turn off the power switch.

# SEC 3. DIAGRAMS

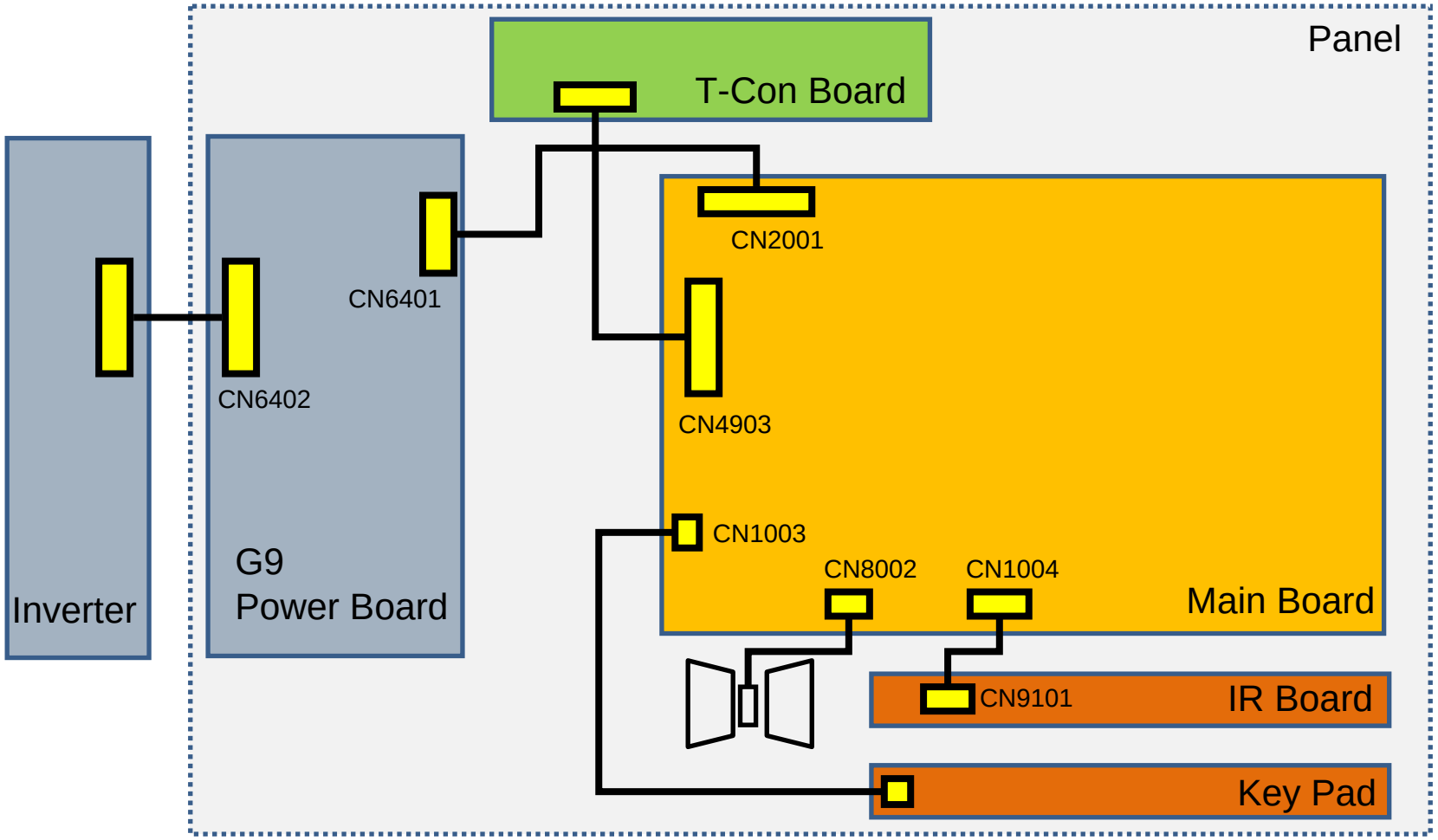
## 3-1. BLOCK DIAGRAM

### 3-1-1. BLOCK

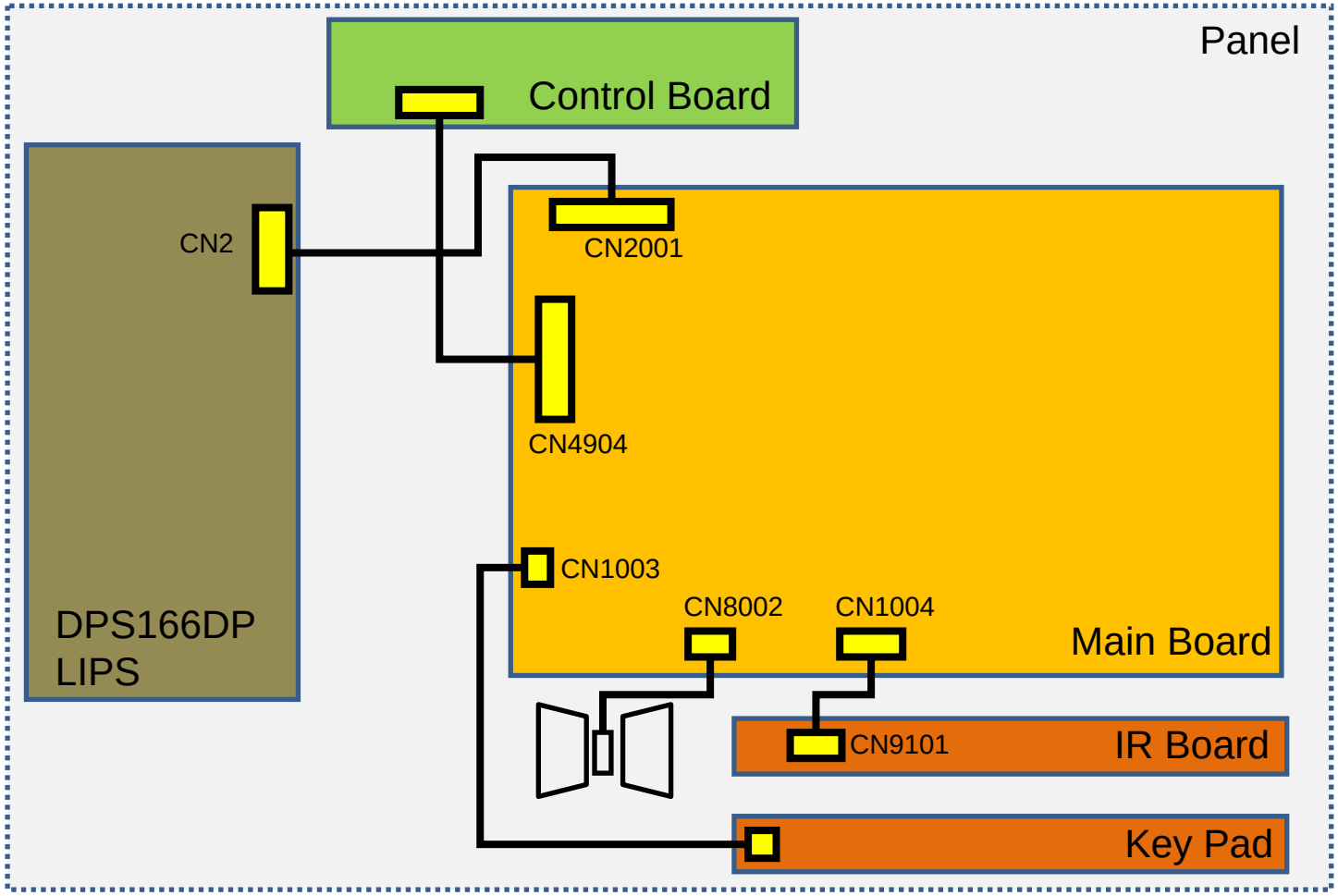


## 3-2. CONNECTOR DIAGRAM

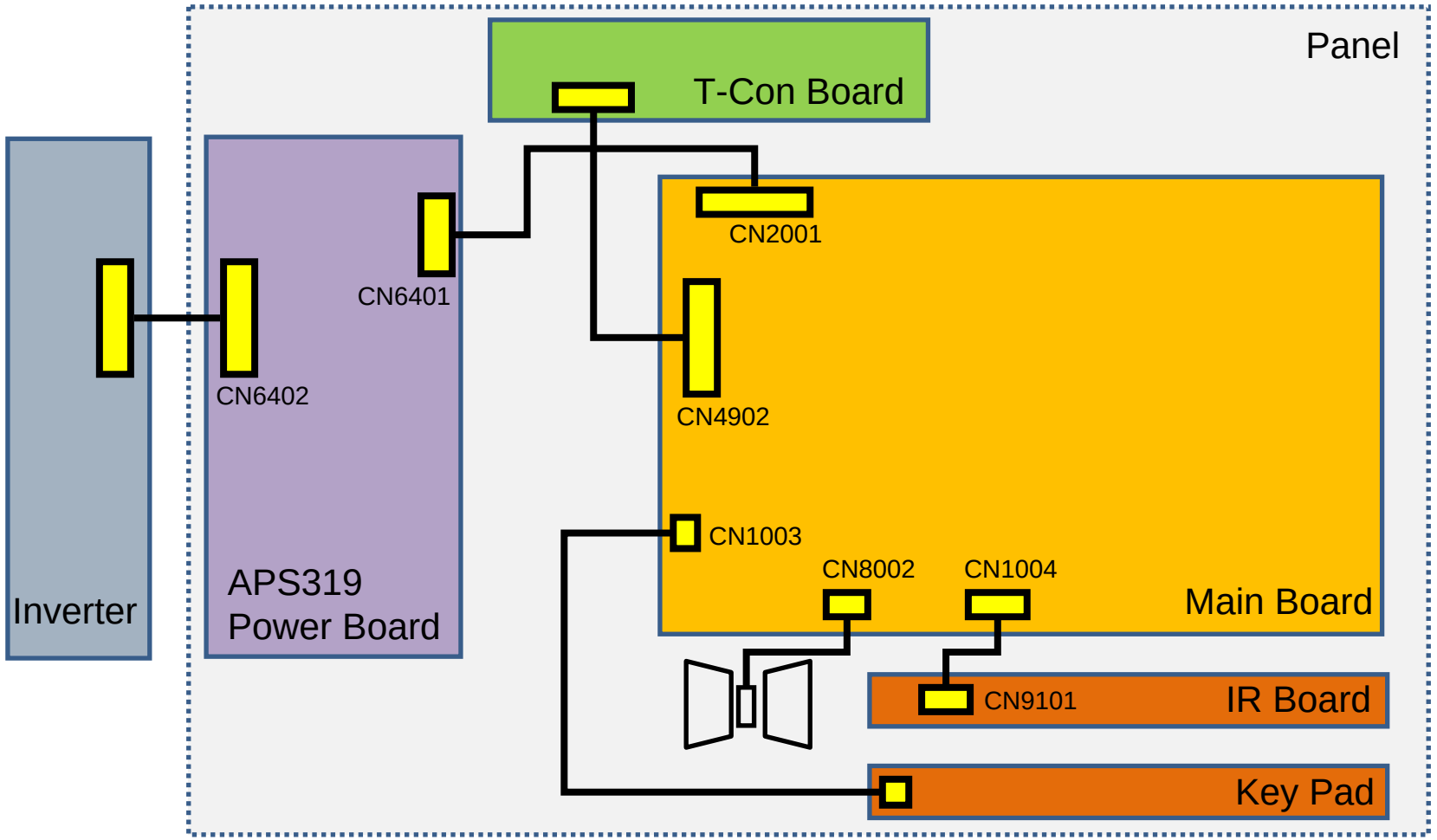
### 3-2-1. KLV-32BX350



### 3-2-2. KLV-40BX450

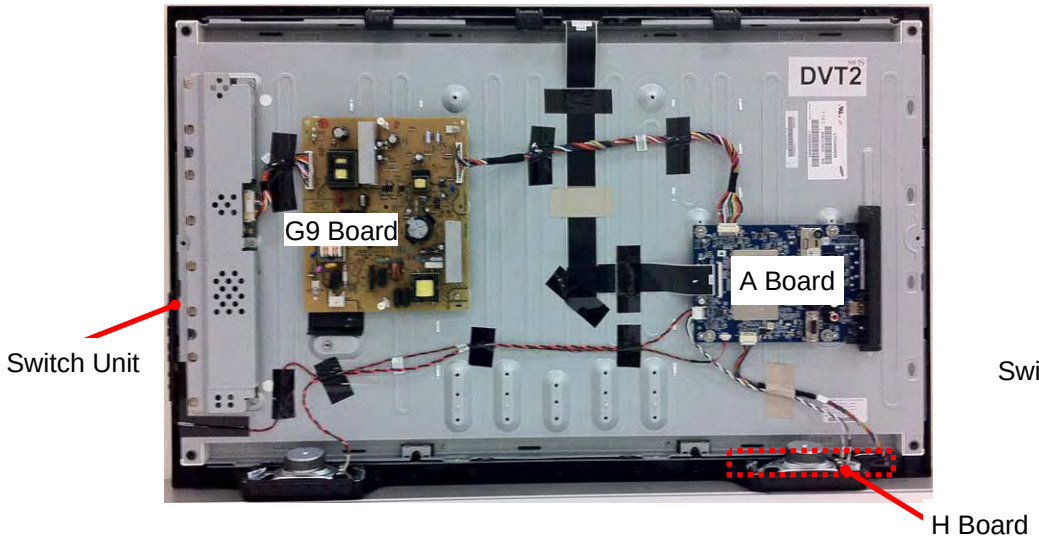


### 3-2-3. KLV-46BX450

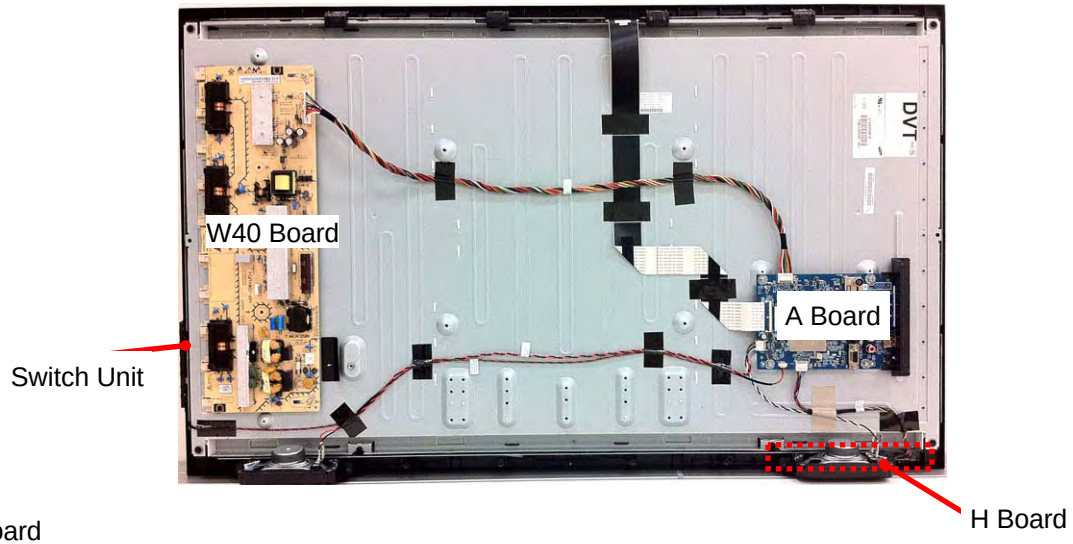


## 3-3. CIRCUIT BOARDS LOCATION

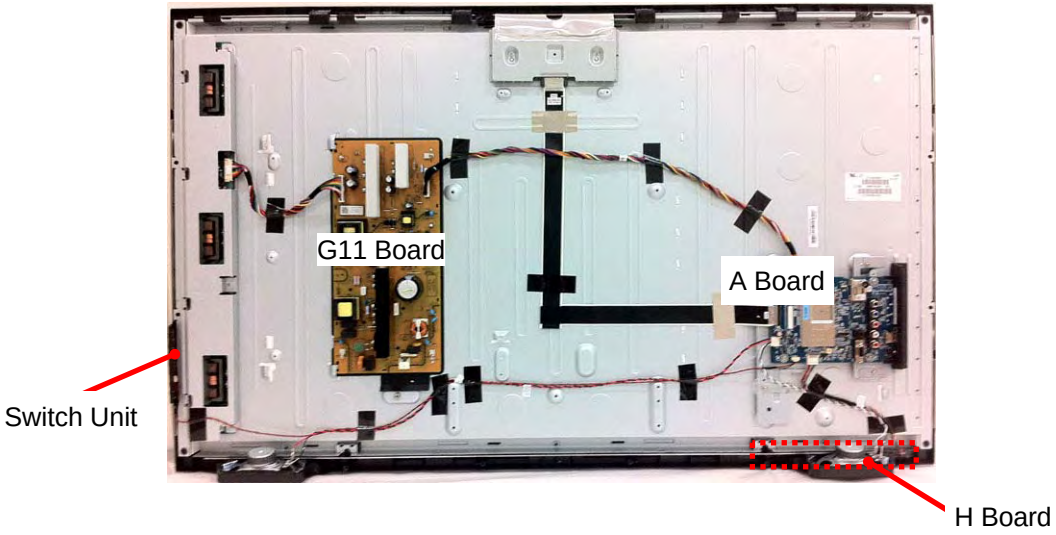
### KLV-32BX350




### KLV-40BX450




### KLV-46BX450



# END

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**Sony Corporation**
**Home Entertainment**
**Business Group**

**9-888-459-02**

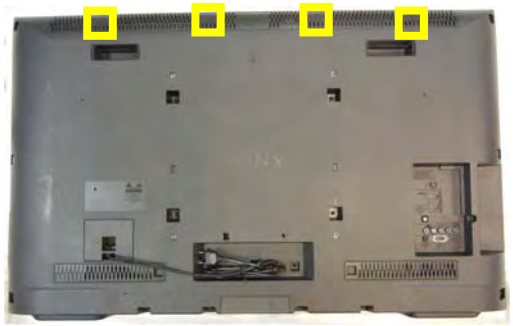
# APPENDIX-1

## PROCEDURE TO REMOVAL OF REAR COVER

1. Remove all screws on Rear Cover and AC Cover.
2. Open Rear Cover in order as below.

32 inch

40 inch

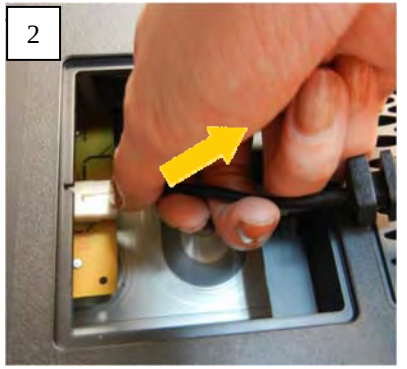


46 inch

1

Disassemble the AC cover

2



Pull the AC cord connector

3

Hold the panel from the hole of the AC cover, and have the center of the rear cover bottom.

4

Lift rear cover in the direction of the arrow.

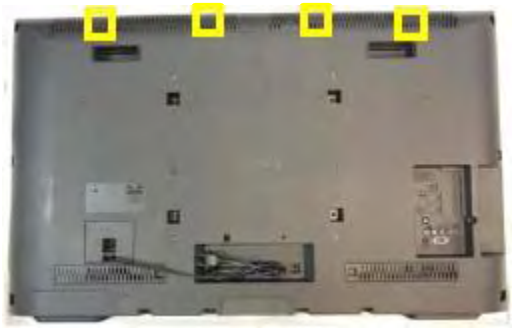
# 附录-1

## 拆除后盖步骤

1. 关闭电源并拆卸螺丝。
2. 按照如下步骤打开后盖。

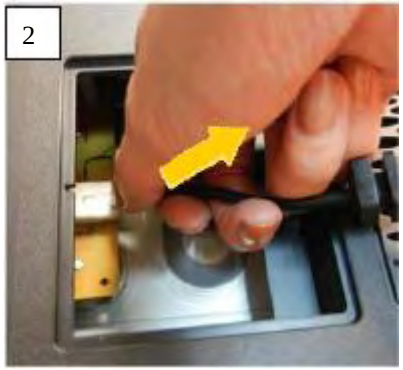
32 寸

40 寸



46 寸

拆下电源盖板




拔下电源线连接头

从电源盖板的孔洞按住液晶屏，
同时抓住后盖底部的中间部位。

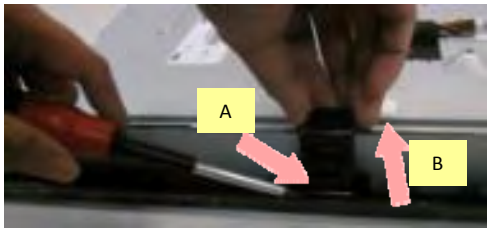
朝着箭头的方向抬起后盖.

# APPENDIX-2

## 1. PROCEDURE TO REMOVE LCD PANEL FROM BEZEL ASSY

Peel off double sided tapes between bezel assembly and LCD panel when exchanging LCD panel, etc, allow below instruction.

1.Put off "Bracket, Panel"




Use tool to loosen the hook as "A", Pull out the hook as "B".

2.Peel off double sided tape

(1) Disassemble 2 screws

(2) Unplug the IR wire

(3) Remove the panel from the bezel

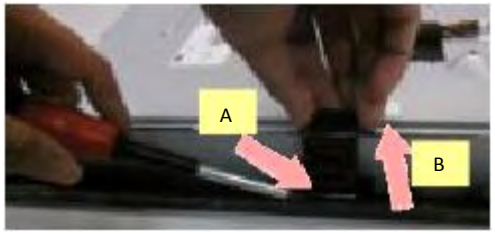
Lift the panel up to disassemble the bezel.

# 附录-2

## 1. 从面板移除液晶屏的步骤

当要更换液晶屏时，撕下粘在边框与液晶屏之间的胶带,等等，请遵循如下指导。

1. 分离 “支架与液晶屏”




使用工具松动锁扣“A”，并移除“B”。

2. 剥离两边的胶带

(1) 拆卸2个螺丝

(2) 拔掉红外线接收板的连接线

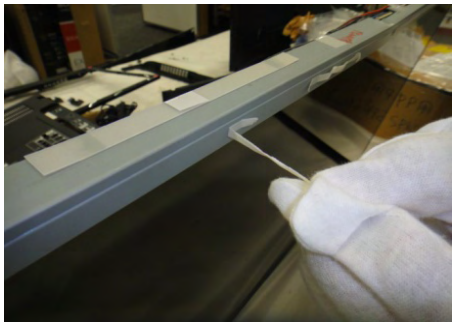
(3) 面板上移动液晶屏

从边框上拆去液晶屏。

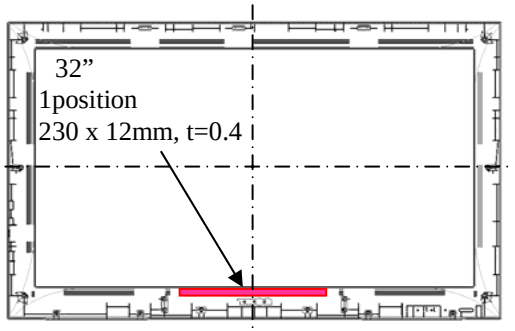
## 2. EXCHENGE DOUBLE SIDED TAPES

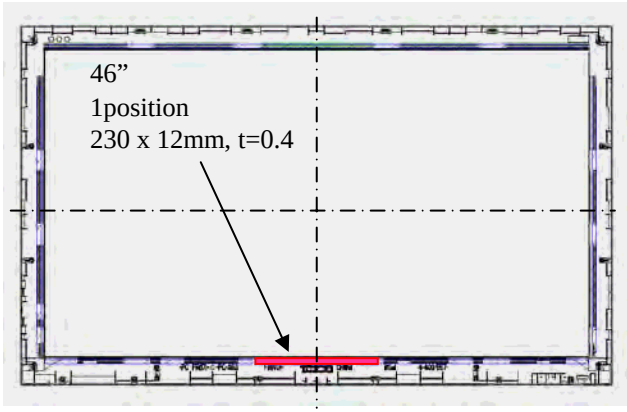
Because double sided tape's strength weaken when tapes once peeled off, peel off all tapes from bezel assembly, and stick new ones (P/N: 4-281-014-01).

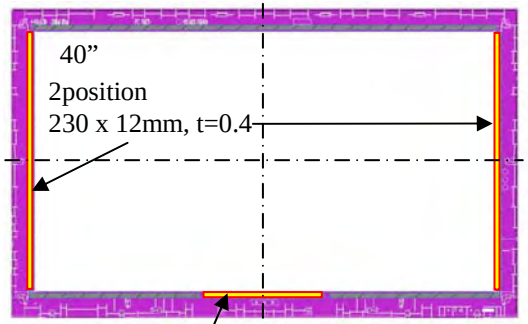
1.Peel off double sided tapes from Panel.
(Possibly remain on Bezel side)



2.Stick double sided tapes
Peel off separate papers before panel puts on.



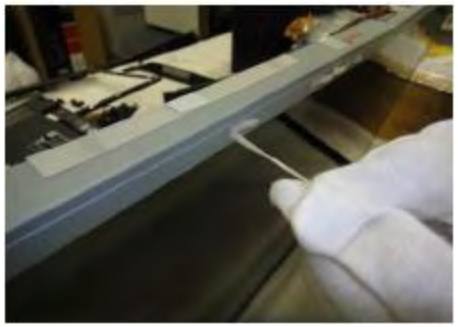




1position
230 x 12mm, t=0.4

## 2. 更换双面胶带

由于，当胶被剥离过一次后双面胶的粘性就会减弱；剥掉面板组件上所有的胶带, 并且附上新的(P/N: 4-281-014-01)。

1. 从面板组件上撕下双面胶带。
(胶带可能还黏在面框边上)



2.液晶屏装上前清理干净双面胶带纸。